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Study of Asthma

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Short Commentary

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Introduction

Asthma is an incurable chronic disease which severely affects the airways to the lungs. People with asthma have the airways linings swollen and highly inflamed causing resistance for the flow of air in and out of the body. This makes the person more sensitive to irritations leading to allergic condition and the whole lining of the airways are constricted. In the asthmatic patients this resistance of air in and out of the lungs causing tightness of chest, shortness of breath, wheezing, coughing. The cough usually absorbed in the nights and early in the morning.

According to WHO around 300 million are suffering from asthma all around the world. In US almost 25 million people suffer with this disease out of which 7 million are children. In Canada 3 million people suffer from asthma. Asthma may be acquired by inheritance and or may occur in certain following cases like exercise induced asthma, occupational asthma, allergy induced asthma.

Causes of Asthma

The exact cause for the condition of asthma is poorly known but the most cases are from inheritance. The primary factors or condition in which asthma generally occurs are-

- Airborne allergy or viral infection
- From inheritance (atopy)
- From childhood respiratory infections
- From parents who have asthma

In the case of allergic asthma everybody is allergic to certain particles from the air but in this case they are highly sensitive certain particles like pollen grains, moulds, mites, animal danders, cockroach etc.

In the same case if accidentally or willingly swallowing of some drinks, nuts, shrimp, antibiotics etc.

Sometimes vigorous exercise also causes asthma in other condition from parents or inherited

Symptoms of Asthma

An asthmatic patient the general process of symptoms occurs on a manner. Once the air is inhaled the inner linings are highly inflamed and swollen making the less access of air to inside and

outside. Then the muscles around the linings are constricted making more obstruction to air and to the final stage airways secrete more mucus making further blockade.

The normal symptoms of asthma include:

- Tightness of chest
- Coughing
- Obstruction in breathing
- wheezing

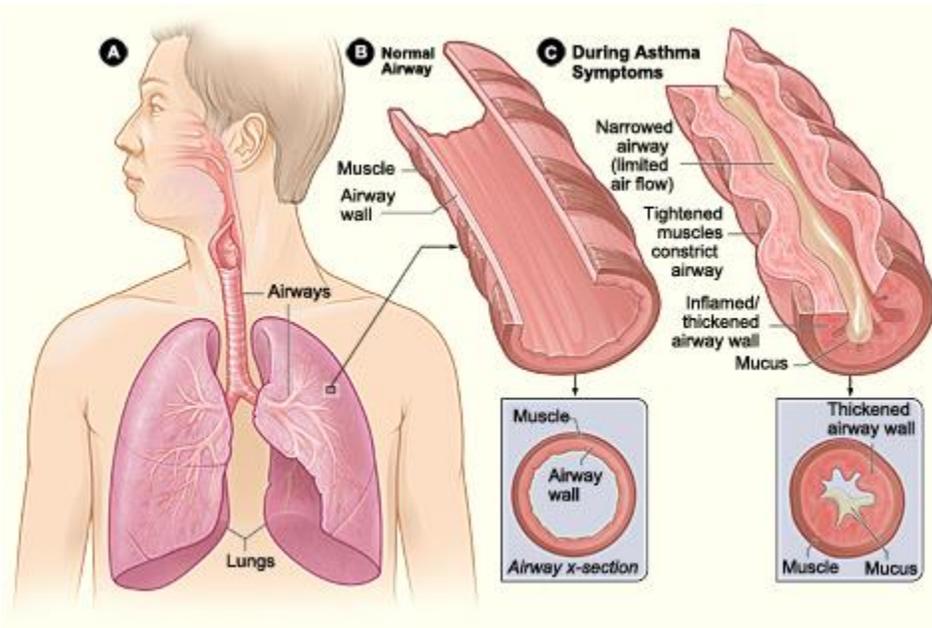


Fig 1: layout of Asthmatic affected individual

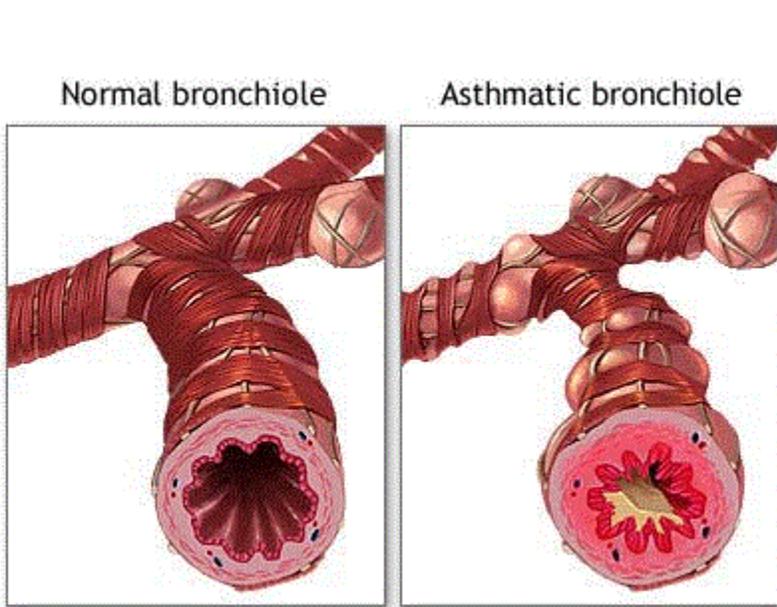


Fig 2: Bronchioles' showing the differences between the normal and Asthmatic person
Treatment of Asthma

Asthma is an incurable disease and there is no specific medication or treatment of this disease. In the treatment of this disease the main aim is to control it. The proper controlling steps would include

- The maintenance of healthy lung condition
- Prevention from allergens
- Prevent from coughing
- Reduce the need for quick relief medicines

Medication include in two processes in long acting and short acting.

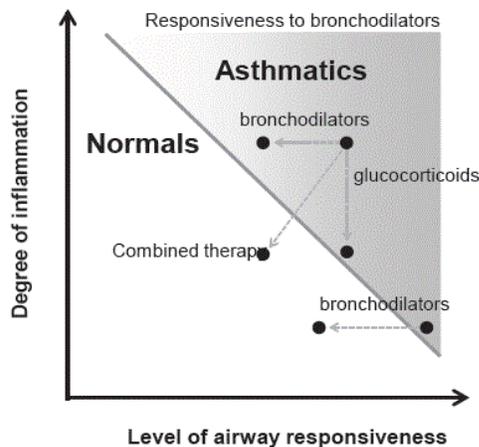
The long acting medicines include

- Theophylline
- Inhalers – Salmeterol and Formeterol etc
- Oral medication – Zileuton, zafirlukast

Short acting Medication

- Allergy therapy – antihistamines, omalizumab, immunotherapy
- Oral and IV corticosteroids
- Beta agonists
- Bronchodialators

In the recent advantages most of the cases of the asthma include the bronchial thermoplasty where the smoothing of the inner linings of the airway or treated to reduce sensitiveness.



Overall Study

In this review study of asthma our main motto is to study the condition of the allergen induces asthma. Depending upon the various experimental studies that are enlisted below in some cases the asthma is mostly allergically caused by house dust mite which causes severe irritation in the

Airway, this can be largely prevented by the induction of Treg cell. House dust mite specific immunotherapy plays an important role in the suppression of the allergic asthma in the present time

there several advances in the specific immunotherapy which helps in the controlling of the allergic asthma.

Various comparative studies on the time period of 3months on the infected children with chronic and the episodic asthma suggests that the episodic asthma showed earlier onset of infection, delayed diagnosis and poorer results of spirometry results.

From many studies conclude that the air conditions like the speed of the wind and the humidity changes directly hit the increase the number of asthmatic infected patients.

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